

Invariants of Singular Varieties using Indices of Vector Fields

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The understanding of the behaviour of the homological index of vector fields tangent to complete intersections varieties over the complex and real numbers provide invariants of the singularity. In particular, there is a piece of the Jacobi Algebra of the singularity that codifies the higher homology of a complex obtained by contracting with a vector field, giving a relation a la Poincare-Hopf between indices and topology.